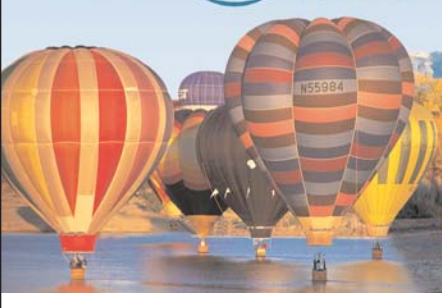
Albuquerque Bernalillo County
Water Utility Authority



San Juan-Chama
DRINKING WATER PROJECT

# How *the Project* Works

## Conveying Our Future

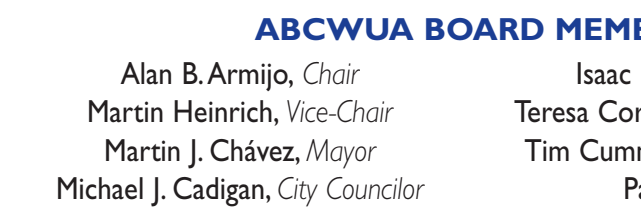
The Rio Grande is the principal conveyance system for the Drinking Water Project. The Albuquerque Bernalillo County Water Utility Authority is building a diversion dam about 1,500 feet south of the Alameda Bridge to divert San Juan-Chama water from the river using a high-tech adjustable height bladder dam. The dam will extend across the full width of the river for about 600 feet; its maximum height won't exceed 4 feet.

The high-tech adjustable height bladder dam being installed in the Rio Grande riverbed.

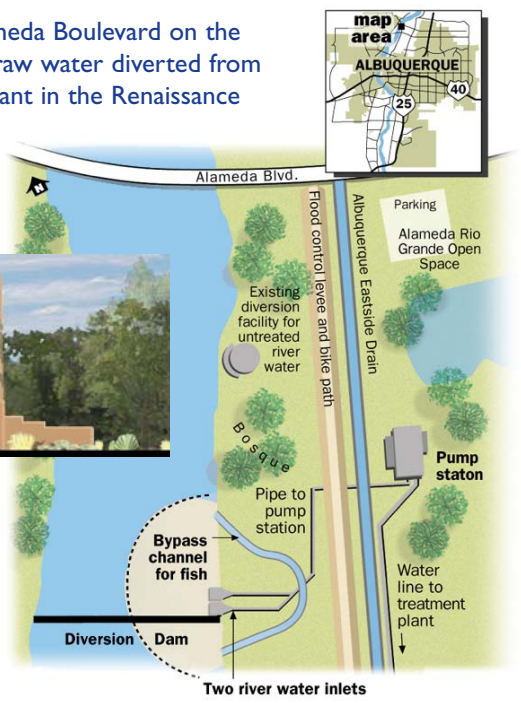
## Pumping Uphill

Water will be diverted into a pump station near the river's edge. From there it will be transmitted via a pipeline running east along Paseo del Norte and south along the North Diversion Channel to a new state-of-the-art water treatment plant in the Renaissance Center. After the water is purified to drinking water standards, it will be transported through a series of 56 miles of pipelines to reservoirs around the service area where it will be blended with aquifer water and sent to water customers. Locations of this pipeline and the construction schedule can be found in next Sunday's (January 29) *Albuquerque Journal*.

The new pump station, located below Alameda Boulevard on the east side of the Rio Grande, will transmit raw water diverted from the river to a state-of-the-art treatment plant in the Renaissance Center. From there, it will be sent through 56 miles of pipelines to water customers throughout the service area.



Pump station illustration courtesy of CH2M Hill. Map illustration courtesy of the *Albuquerque Journal*.

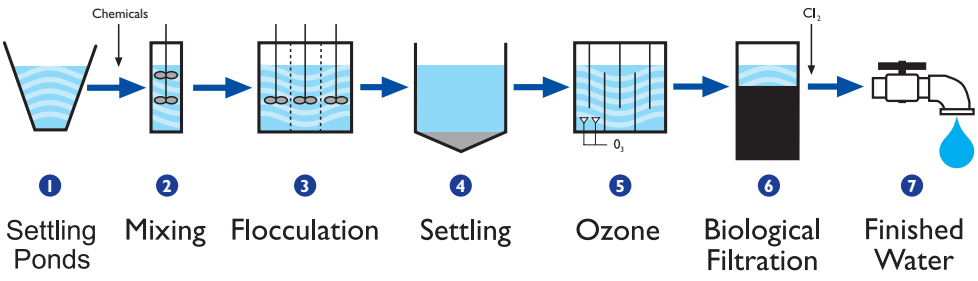



## The Treatment Process

Because most contaminants are attached to sediments suspended in the surface water, the first logical step is to filter those sediments out. Screening at the point of intake will remove the larger sediments; then the water will flow to pre-sedimentation ponds, where more sediments will be allowed to settle. The water will continue through a series of treatment steps aimed primarily at removing sediments and disinfecting the water. At the end of the cycle, the water will be chemically disinfected through the addition of chlorine. Fluoride will be added to provide safe levels of this important mineral, which helps strengthen bones and teeth.

## A Robust Process

Sampling has shown radioactive materials in our water are far below U.S. Environmental Protection Agency (EPA) limits, and the risk of radioactivity potentially flowing from upstream sources is extremely low. The treatment plant will use ozone- and granular-activated carbon filtration, which represent one of the most robust treatment processes in the nation. These processes also are effective in removing pharmaceutically active compounds that may have found their way into the river. If such compounds show up, they will be oxidized, then absorbed onto the granular-activated carbon. Two separate, 50-million-gallon pre-sedimentation ponds will hold San Juan-Chama water for about 24 hours. From these ponds, the water will be pumped to the main treatment plant processors, which include a mixing facility where a coagulant is added to remove turbidity (muddiness).




## Removing the Undesirables

The water will then flow to the ozone contactors for disinfection where ozone is added to oxidize any organics in the water. It is then directed to the filtration facilities, where any remaining turbidity is removed. These facilities use granular-activated carbon to absorb any organic material that may remain in the water. The treated water will then flow into the finished water storage tanks from which it is pumped into the Authority's water distribution system on both the east and west sides of the city.

## Gearing Up for the Future

The Albuquerque Bernalillo County Water Utility Authority oversees the San Juan-Chama Drinking Water Project. The Authority, which was created in June 2003, administers the water and wastewater utilities for all of Albuquerque and Bernalillo County. It is a partnership of the City and the County, governed by a board of directors consisting of three City Councilors, three County Commissioners, the Mayor of Albuquerque and an at-large ex-officio member from the Village of Los Ranchos.

**IN NEXT SUNDAY'S JOURNAL:**

**JANUARY 29: Construction Ahead**



Albuquerque Bernalillo County
Water Utility Authority

*For more information about the San Juan-Chama Drinking Water Project, call* **242-ROAD** *(7623) or visit our website at* **www.sjcdrinkingwater.org**
*TTY* **1-800-659-8331**